

WHAT IS CLAIMED IS:

1. A method for inhibiting KDR/Flk-1 signal transduction, which comprises using a substance which inhibits binding of a signal transduction molecule to 1175-tyrosine phosphorylated KDR/Flk-1.

2. A method for inhibiting cell growth, which comprises using a substance which inhibits binding of a signal transduction molecule to 1175-tyrosine phosphorylated KDR/Flk-1.

3. A method for inhibiting angiogenesis, which comprises using a substance which inhibits binding of a signal transduction molecule to 1175-tyrosine phosphorylated KDR/Flk-1.

4. A method for screening a cell growth inhibitor, which comprises using a substance which inhibits binding of a signal transduction molecule to 1175-tyrosine phosphorylated KDR/Flk-1.

5. A method for screening an angiogenesis inhibitor, which comprises using a substance which inhibits binding of a signal transduction molecule to 1175-tyrosine phosphorylated KDR/Flk-1.

6. A method for screening a substance which inhibits KDR/Flk-1 signal transduction, which comprises using a substance which inhibits binding of a signal transduction molecule to 1175-tyrosine phosphorylated KDR/Flk-1.

7. A method for determining whether or not a tested substance can inhibit KDR/Flk-1 signal transduction,

which comprises using a substance which inhibits binding of a signal transduction molecule to 1175-tyrosine phosphorylated KDR/Flk-1.

8. A method for detecting angiogenesis in tissue, which comprises using a substance which inhibits binding of a signal transduction molecule to 1175-tyrosine phosphorylated KDR/Flk-1.

9. A method for screening a substance which inhibits 1175-tyrosine phosphorylated KDR/Flk-1, which comprises using a substance which inhibits binding of a signal transduction molecule to 1175-tyrosine phosphorylated KDR/Flk-1.

10. The method according to any one of claims 1 to 9, wherein the signal transduction molecule is phospholipase C- $\gamma$  (PLC- $\gamma$ ).

11. The method according to any one of claims 1 to 9, wherein the substance which inhibits binding of a signal transduction molecule to 1175-tyrosine phosphorylated KDR/Flk-1 is an antibody which specifically recognizes 1175-tyrosine phosphorylated KDR/Flk-1.

12. The method according to claim 11, wherein the antibody which specifically recognizes 1175-tyrosine phosphorylated KDR/Flk-1 is an antibody which binds to the 1175-tyrosine phosphorylated KDR/Flk-1 and inhibits phosphorylation of PLC- $\gamma$ .

13. The method according to claim 11 or 12, wherein the antibody is a monoclonal antibody or the antibody fragment thereof.

14. A method for inhibiting KDR/Flk-1 signal transduction, which comprises using a substance which inhibits phosphorylation of 1175-tyrosine of KDR/Flk-1.

15. A method for inhibiting cell growth, which comprises using a substance which inhibits phosphorylation of 1175-tyrosine of KDR/Flk-1.

16. A method for inhibiting angiogenesis, which comprises using a substance which inhibits phosphorylation of 1175-tyrosine of KDR/Flk-1.

17. A method for determining whether or not a tested substance can inhibit KDR/Flk-1 signal transduction, which comprises using a substance which inhibits phosphorylation of 1175-tyrosine of KDR/Flk-1.

18. A method for detecting angiogenesis in tissue, which comprises using a substance which inhibits phosphorylation of 1175-tyrosine of KDR/Flk-1.

19. An agent comprising, as an active ingredient, a substance which inhibits binding of a signal transduction molecule to 1175-tyrosine phosphorylated KDR/Flk-1.

20. The agent according to claim 19, which is a tyrosine phosphorylation inhibitor.

21. The agent according to claim 19, which is a cell growth inhibitor.

22. The agent according to claim 19, which is an angiogenesis inhibitor.

23. The agent according to any one of claims 19 to 22, wherein the substance which inhibits binding of a signal transduction molecule to 1175-tyrosine phosphorylated KDR/Flk-1 is an antibody which specifically recognizes 1175-tyrosine phosphorylated KDR/Flk-1.

24. The agent according to claim 23, wherein the antibody which specifically recognizes 1175-tyrosine phosphorylated KDR/Flk-1 is an antibody which binds to the 1175-tyrosine phosphorylated KDR/Flk-1 and inhibits phosphorylation of phospholipase C- $\gamma$  (PLC- $\gamma$ ).

25. The agent according to claim 23 or 24, wherein the antibody is a monoclonal antibody or an antibody fragment thereof.

26. A tyrosine phosphorylation inhibitor of KDR/Flk-1, comprising, as an active ingredient, a substance which inhibits phosphorylation of 1175-tyrosine of KDR/Flk-1.

27. A cell growth inhibitor, comprising as an active ingredient, a substance which inhibits phosphorylation of 1175-tyrosine of KDR/Flk-1.

28. An angiogenesis inhibitor, comprising, as an active ingredient, a substance which inhibits phosphorylation of 1175-tyrosine of KDR/Flk-1.

29. A compound which is obtained by the method according to any one of claims 4 to 6 and 9.

30. An antibody which recognizes 1175-tyrosine phosphorylated KDR/Flk-1.

31. The antibody according to claim 30, which is an antibody which binds to 1175-tyrosine phosphorylated KDR/Flk-1 and inhibits binding of a signal transduction molecule to the phosphorylated KDR/Flk-1.

32. The antibody according to claim 30 or 31, which is an antibody which binds to 1175-tyrosine phosphorylated KDR/Flk-1 and inhibits phosphorylation of phospholipase C- $\gamma$  (PLC- $\gamma$ ).

33. A monoclonal antibody or the antibody fragment thereof, which recognizes 1175-tyrosine phosphorylated KDR/Flk-1.

34. The monoclonal antibody or the antibody fragment thereof according to claim 33, which is a monoclonal antibody or the antibody fragment thereof which binds to 1175-tyrosine phosphorylated KDR/Flk-1 and inhibits binding of a signal transduction molecule to the phosphorylated KDR/Flk-1.

35. The monoclonal antibody or the antibody fragment thereof according to claim 33 or 34, which is a monoclonal antibody or the antibody fragment thereof which binds to 1175-tyrosine phosphorylated KDR/Flk-1 and inhibits phosphorylation of phospholipase C- $\gamma$  (PLC- $\gamma$ ).

36. The monoclonal antibody or the antibody fragment thereof according to any one of claims 33 to 35, which is a monoclonal antibody which is produced by a hybridoma KM3035 (FERM BP-7729) or the antibody fragment thereof.

37. The antibody fragment according to any one of claims 33 to 36, wherein the antibody fragment is an

antibody fragment selected from Fab, Fab', F(ab')<sub>2</sub>, a single chain antibody (scFv), a dimerized variable region (V region) fragment (diabody), a disulfide stabilized V region fragment (dsFv) and a peptide comprising a complementarity determining region (CDR).

38. A monoclonal antibody or the antibody fragment thereof, in which the monoclonal antibody or the antibody fragment thereof according to any one of claims 33 to 37 is chemically or genetically conjugated with a radioisotope, a protein or an agent.

39. A DNA which encodes the monoclonal antibody or the antibody fragment thereof according to any one of claims 33 to 38.

40. A recombinant vector comprising the DNA according to claim 39.

41. A transformant comprising a host cell into which the recombinant vector according to claim 40 is introduced.